Amendments to the Claims:

Please amend the claims as follows. The following listing of claims replaces all prior versions if pending claims.

1-22. (canceled)

23. (Previously Presented) A process for covalently binding a tagged protein to a polymer particle, the process comprising;

providing a tagged protein;

contacting the tagged protein with a conjugate of a chelating agent and the polymer particle to form a protein-polymer particle-chelating agent metal ion complex, wherein the chelating agent is covalently linked to the polymer particle; and

contacting the complex with a carbodiimide to form a covalently bound protein; wherein:

the tag comprises at least two histidine residues;

the tag comprises at least two lysine residues;

the chelating agent is tridentate, tetradentate, or pentadentate:

the chelating agent comprises at least two carboxyl groups; and

the chelating agent is coordinated by a metal ion.

24. (Previously Presented) The process of claim 23, further comprising removing the metal ion from the covalently bound protein,

25. (Previously Presented) The process of claim 23, wherein the tagged protein is a HAT-tagged protein.

26. (Previously Presented) The process of claim 23, wherein the carbodiimide is dicyclohexylcarbodlimide, N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide (EDC), or a salt thereof.

27. (Previously Presented) The process of claim 23, wherein the chelating agent comprises three carboxyl groups.

28. (Previously Presented) The process of claim 23, wherein the chelating agent is tetradentate.

29. (Previously Presented) The process of claim 23, wherein the chelating agent is iminodiacetic acid, nitrilo triaretic acid, tris(carboxymethyl)ethylene diamine or carboxymethylated aspartate (Cm-Asp).

30. (Previously Presented) The process of claim 23, wherein the polymer particle is magnetic.

31. (Previously Presented) The process of claim 23, wherein the polymer particle is porous.

32. (Previously Presented) The process of claim 23, wherein the polymer particle has a diameter of about 0.2 microns to about 1.5 microns.

33. (Previously Presented) The process of claim 23, wherein the metal ion is a transition metal ion.

34. (Previously Presented) The process of claim 23, wherein the metal ion has a 2+ oxidation state.

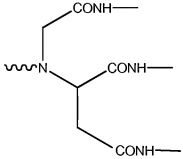
35. (Previously Presented) The process of claim 23, wherein the metal ion is Co^{2+}.

36. (Previously Presented) A covalently bound protein obtained by the process of claim 23.

37. (Currently Amended) A protein bound to a polymer particle having the structure:

Polymer particle - linker - protein; wherein:

the linker comprises the structure:



and;

the protein comprises a tag sequence comprising at least two histidine residues and at least two lysine residues, wherein the linker further comprises a structure:

$$-NH-L_1-Er-Nr-L_2-$$

wherein L_1 is a linker comprising 1 to 10 atoms, L_2 is a linker comprising 1 to 10 atoms, E_r is an electrophile residue, and N_r is a nucleophile residue; and

wherein the linker is covalently bound to at least one of the at least two lysine residues of the tag sequence of the protein via amide linkages.

38. (Previously Presented) A protein covalently bound to a magnetic polymer particle, wherein:

the protein comprises a tag sequence;

the tag sequence comprises at least two histidine residues and at least two lysine residues; the magnetic polymer particle comprises a linking group; and

the linking group is covalently bound to at least one of the at least two lysine residues via amide linkages, wherein the linking group comprises at least three linking atoms.

39. (Previously Presented) A plurality of proteins of claim 38, wherein the plurality of proteins are monodisperse.

40. (Previously Presented) The protein of claim 38, wherein the linking group comprises an amino group.

41. (Previously Presented) The protein of claim 38, wherein the linking group comprises an electrophile residue.

42. (Previously Presented) The protein of claim 38, wherein the linking group comprises a nucleophile residue.

43. (Previously Presented) The protein of claim 38, wherein the linking group has the structure:

$$-NH-L_1-Er-Nr-L_2-$$

wherein L_1 is a linker comprising 1 to 10 atoms, L_2 is a linker comprising 1 to 10 atoms, E_r is an electrophile residue, and N_r is a nucleophile residue.

44. (Currently Amended) The protein of claim 38 ~~process of claim 1~~, wherein the chelating agent is covalently linked to the polymer particle by at least three linking atoms.

45. (Currently Amended) The protein of claim 38 ~~process of claim 1~~, wherein the chelating agent is covalently linked to the polymer particle by at least six linking atoms.

46. (Currently Amended) The protein of claim 38 ~~process of claim 1~~, wherein the chelating agent is covalently linked to the polymer particle by 6 to 20 linking atoms.

47. (Currently Amended) The protein of claim 38 ~~process of claim 1~~, wherein the chelating agent is covalently linked to the polymer particle by linking group having the structure:

-NH-L_1-Er-Nr-L_2-

wherein L_1 is a linker comprising 1 to 10 atoms, L_2 is a linker comprising 1 to 10 atoms, E_r is an electrophile residue, and N_r is a nucleophile residue.